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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/692,824	10/19/2000	Jose Murilo Mourao	MITA 17.869	6759

26304 7590 10/03/2006

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EXAMINER
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KASTLER, SCOTT R

ART UNIT	PAPER NUMBER
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1742

DATE MAILED: 10/03/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/692,824

Applicant(s)

MOURAO ET AL.

Examiner

Scott Kastler

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 07 June 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 17-43 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 34-43 is/are allowed.
- 6) ☒ Claim(s) 17-32 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 17-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nachtman et al. Nachtman et al teaches a composite particle and method of making, where the particle comprises a core (11) which may be of fine iron ore (see col. 3 lines 28-37) and a sealing layer (12) which may be formed of a mixture of clay materials and pozzolanic materials (see claim 2 for example) where the clay material may be bentonite clay (see col. 4 lines 10-15 for example) and the pozzolanic material may be Portland cement (see col. 4 lines 34-36 for example), where the disclosure of Nachtman et al includes particle sizes and composition ranges broadly encompassing those instantly claimed, and where the composite particles are formed by contacting the core materials with an aqueous mixture of the sealing layer materials, thereby showing all aspects of the above claims except specifically reciting that the core be iron ore and the coating (sealing) layer be bentonite and Portland cement, since the intended use of the product produced from the recited method cannot be relied upon to further limit claims to the process of production of the product itself; although as stated above these materials are specifically stated as useful materials for the respective portions of the disclosed composite particles. It has been well settled that where the applied prior art teaches a range of compositions or properties overlapping a claimed range, motivation to select a particular range or value within the range disclosed by the applied prior art would have been a modification obvious to one of

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ordinary skill in the art at the time the invention was made. See MPEP 2144.05. In the instant case, since Nachtman et al specifically teaches that iron ore is useful for the core of it's claimed composite particle and a mixture of clay materials, including bentonite clay, and pozzolanic materials, including Portland cement are useful as the sealing layer of the composite particle, motivation to employ these components as the core and sealing layer materials of Nachtman et al, would have been a modification obvious to one of ordinary skill in the art at the time the invention was made.

#### ***Allowable Subject Matter***

Claims 34-43 are allowed at least because none of the cited or applied prior art shows or fairly suggests a method of operating a direct reduction furnace with the recited coated material. The closest cited prior art, Nachtman et al, is directed to the non-analogous method of employing a coated particle as part of a barrier forming layer.

#### ***Response to Arguments***

Applicant's arguments filed on 6/7/2006 have been fully considered but they are not persuasive. Applicant's argument that since the claims as presently amended now recite a process for production of ferrous materials for use in a direct reduction furnace the method of producing the materials disclosed by Nachtman cannot be relied upon is not persuasive because the intended use of a product cannot be relied upon to fairly further limit claims to the method of making the product itself.

***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

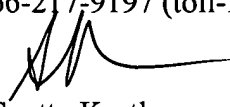
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Scott Kastler whose telephone number is (571) 272-1243. The examiner can normally be reached on Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King can be reached on (571) 272-1244. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Scott Kastler  
Primary Examiner  
Art Unit 1742

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